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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,905	09/25/2003	James E. Roberts	P00814-US-00	6039
31835	7590	09/02/2005	EXAMINER	
RUSSELL E. FOWLER, II ICE MILLER ONE AMERICAN SQUARE, BOX 82001 INDIANAPOLIS, IN 46282-0002			BUI-PHO, PASCAL M	
			ART UNIT	PAPER NUMBER
			2878	

DATE MAILED: 09/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/670,905

Applicant(s)

ROBERTS ET AL.

Examiner

Pascal M. Bui-Pho

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: reference number **12** (Page 3, lines 20 and 21) refers to separate components.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 4-7, 18, and 19 are rejected under 35 U.S.C. 102(b) as being by anticipated by Hopkins et al. (US 5,164,785).

With regards to claim 1, Hopkins et al. disclose a headlight aiming system comprising a photodetector array (30) having a plurality of photodetector elements each operable to provide a signal that corresponds to the light received by photodetector element (Column 5, lines 21-29, column 6, lines 16-19, and column 8, lines 3-8). Furthermore, Hopkins et al. disclose a gradient circuit (32, 56, and figure 4) in communication with the photodetector array and operable to determine a light gradient measured between each of the plurality of photodetector elements (Columns 7-9). Furthermore, Hopkins et al. disclose a display device (20) in communication with the gradient circuit for displaying the measured data from the circuit.

With regards to claim 4, Hopkins et al. disclose a headlight aiming system wherein the gradient circuit comprises a microchip (Column 6, lines 16-35).

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With regards to claim 5, Hopkins et al. disclose a headlight aiming system further comprising a mounting device (1, 28) wherein the gradient circuit (32, 56, and figure 4) is attached to the mounting device.

With regards to claim 6, Hopkins et al. disclose a headlight aiming system wherein the mounting device is a screen (28).

With regards to claim 7, Hopkins et al. disclose a headlight aiming system wherein the screen is attached to a wall (Figure 3).

With regards to claims 18 and 19, Hopkins et al. disclose a headlight aiming system comprising of a screen (28) for receiving at least one beam of light, means (30, 56, columns 9-11) for determining all the values of light intensity pattern project on the screen which inherently includes the maximum and/or minimum values of the projected intensity levels and means (2) for displaying the graphical intensity pattern of the determined values of light (Columns 10-12).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hopkins et al. (US 5,164,785) in view of "Photo-electric device for measuring headlamp aim height" anonymously authored and published in October 2001 by Kenneth Mason Publications Ltd, hereinafter referred to as "the literature".

With regards to claim 2, Hopkins et al. fail to disclose an array comprising of a plurality of light sources positioned adjacent to one of the photodetector elements and in communication with the gradient circuit. The literature discloses a photo-electric device wherein an array of photo-diodes comprises of a series of LEDs positioned adjacent to one of the photodetector elements and in communication with the gradient circuit. It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to modify Hopkins et al. to include a plurality of light sources adjacent to one of the photodetector elements and in communication with the gradient circuit in order to provide a visual aid to the user.

6. Claims 3, 8, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hopkins et al. (US 5,164,785).

With regards to claim 3, per the above discussion, although Hopkins et al. fail to specify the number of photodetector elements, it would have been consisting of at least three photodetectors, however, if not, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the literature accordingly in order to provide a sufficient number of photodetectors for the photodetector array.

With regards to claim 8, although Hopkins et al. disclose a headlight aiming system comprising of a photodetector array, a gradient circuit, a display device capable of displaying road/object simulations, and a mounting device wherein the mounting device is a screen, Hopkins et al. fail to disclose a light beam gradient detector wherein the screen includes a plurality of markings. Selecting a screen with markings in order to provide more detailed indication of the performances of the device would have been obvious to one of ordinary skill in

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the art. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Hopkins et al. accordingly in order to provide better visual results from the device.

With regards to claim 20, Hopkins et al. disclose a headlight aiming system with a mean to display the maximum gradient value, but fail to disclose the means for displaying the maximum gradient value on the screen. It would have inherently been included, however, if not, it would have been obvious to one of ordinary skill in the art to modify Hopkins et al. and provide the means for displaying the maximum gradient value on the screen in order to facilitate the reading of the data.

7. Claims 9-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over “Photo-electric device for measuring headlamp aim height” anonymously authored and published in October 2001 by Kenneth Mason Publications Ltd, hereinafter referred to as “the literature.

With regards to claims 9-11, although the literature discloses an array of LEDs to indicate the light gradient levels, the literature fails to disclose a mounting device for mounting the photodetector array and the LED array together. Selecting a specific manner and/or location for mounting elements/components of the system for providing a better accommodation for the elements/components of the system would have been obvious to one of ordinary skill in the art. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the literature accordingly in order to provide a compact design for the system. The inclusion of the display device upon the mounting device would have also been obvious for similar reasons set forth above.

With regards to claim 12, although the literature lacks an inclusion of the maximum light gradient for all light gradients between adjacent photodetector elements, determining the

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maximum light gradient for all light gradients between adjacent photodetector elements, for acquiring an appropriate light aim would have been obvious to one of ordinary skill in the art. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the literature accordingly in order to provide optimal accuracy for the system.

With regards to claim 13, although the literature discloses a mean to display acquired data, but lacks a clear inclusion of a maximum light gradient, it would have been inherently included, however, if not, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the literature accordingly in order to provide more detailed information of the displayed data.

With regards to claim 14, although the literature discloses a photo-electric device for determining the light gradient between photodetector elements, the literature fails to specify the inclusion of a microchip. Selecting a known available type of device or microchip for providing better performance would have been obvious to one of ordinary skill in the art. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the literature accordingly in order to provide more reliable sensing results from the system.

With regards to claims 15-17, although the literature discloses a photo-electric device comprising of a mounting device, the literature fails to specifically disclose a system wherein the mounting device is a screen with markings representative of a roadway, wherein at least one marking is a horizon. Selecting a known available type or screen with markings representative of a roadway/horizon in order to provide more detailed indications of the performances of the device would have been obvious to one of ordinary skill in the art. It would have been obvious

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to one of ordinary skill in the art at the time of the invention to modify the literature accordingly in order to provide better visual results from the device.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pascal M. Bui-Pho whose telephone number is (571) 272-2714.


The examiner can normally be reached on Monday through Friday: 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Porta can be reached on (571) 272-2444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Pascal M. Bui-Pho
Examiner
Art Unit 2878

pmb



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